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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,783	04/01/2002	Jean-Pol E Cassart	BC45263	1019

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DECHERT
ATTN: ALLEN BLOOM, ESQ
4000 BELL ATLANTIC TOWER
1717 ARCH STREET
PHILADELPHIA, PA 19103

EXAMINER	
NGUYEN, DAVE TRONG	
ART UNIT	**PAPER NUMBER**
1632	

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/089,783	CASSART ET AL.	
	Examiner	Art Unit	
	Dave T Nguyen	1632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 4/29/02

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-37 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) 1-37 are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted.

Group I. Claims 1-7, 17-18, 20-21, 23, drawn to an amino acid sequence which has at least 70% identity to the amino acid sequence of SEQ ID NO: 2, which is a polypeptide of 460 amino acids, fragments thereof, which exhibits the property of inducing an immune response against SEQ ID NO: 2, vaccine comprising the amino acid sequence, and a first method of use by employing the amino acid sequence or fragments thereof in a screening assay.

Group II. Claims 1-7, 17-18, 20-21, 23, drawn to an amino acid sequence which has at least 70% identity to the amino acid sequence of SEQ ID NO: 4, which is a polypeptide of 154 amino acids, fragments thereof, which exhibits the property of inducing an immune response against SEQ ID NO: 4, vaccine comprising the amino acid sequence, and a first method of use by employing the amino acid sequence or fragments thereof in a screening assay.

Group III. Claims 8-12, 13(a), 13(b), 14-16, 24-25, claim 27(b), drawn to an isolated polynucleotide sequence comprising a nucleotide sequence that has at least 70% identity to the amino acid sequence of SEQ ID NO: 2, said nucleotide sequences that hast at least 70% identity to a nucleotide sequence encoding SEQ ID NO: 2 or to SEQ ID NO: 1 (CASB6411 SEQ ID NO:1), vectors containing the isolated polynucleotide sequence, host cells comprising the vectors, a first method of using the polynucleotide sequences for making a polypeptide of claims 1-7.

Group IV. Claims 8-12, 13(a), 13(b), 14-16, 24-25, claim 27(b), drawn to an isolated polynucleotide sequence comprising a nucleotide sequence that has at least 70% identity to the amino acid sequence of SEQ ID NO: 4, said nucleotide sequences that hast at least 70% identity to a nucleotide sequence encoding SEQ ID NO: 4 or to SEQ ID NO: 3, vectors containing the isolated polynucleotide sequence, host cells comprising the vectors, a first method of using the polynucleotide sequences for making a polypeptide of claims 1-7.

Group V. Claim 13(c), drawn to a polynucleotide obtainable by screening assays, wherein a labeled probe having the sequence of SEQ ID NO: 1 or a fragment thereof that is capable of raising an immune response which recognizes the protein of SEQ ID NO: 2. is employed.

Group VI. Claim 13(c), drawn to a polynucleotide obtainable by screening assays, wherein a labeled probe having the sequence of SEQ ID NO: 3 or a fragment thereof that is capable of raising an immune response which recognizes the protein of SEQ ID NO: 4. is employed.

Group VII. Claim 19, 20-21, 24, 25, drawn to a vaccine comprising an effective amount of antigen presenting cells, which has been modified by an in vitro culturing step with a polypeptide as claimed in Group I.

Group VIII. Claim 27(c), drawn to a nucleic acid sequence that modulates the expression of the nucleotide sequence of the polypeptide of Group I.

Group IX. Claim 19, 20-21, 24, 25, drawn to a vaccine comprising an effective amount of antigen presenting cells, which has been modified by an in vitro culturing step with a polypeptide as claimed in Group II.

Group X. Claim 27(c), drawn to a nucleic acid sequence that modulates the expression of the nucleotide sequence of the polypeptide of Group II.

Group XI. Claim 32, drawn to an isolated nucleotide sequence, which has at least 70% identity to SEQ ID NO: 5.

Group XII. Claim 32, drawn to an isolated nucleotide sequence, which has at least 70% identity to SEQ ID NO: 7.

Group XIII. Claim 33, drawn to a live vaccine composition comprising an expression vector according to Group III.

Group XIV. Claim 33, drawn to a live vaccine composition comprising a recombinant live micro-organism according to Group III.

Group XV. Claim 22, drawn to an antibody which is immunospecific to the polypeptide or fragment as claimed in Group I claims.

Group XVI. Claim 22, drawn to an antibody which is immunospecific to the polypeptide or fragment as claimed in Group II claims.

Group XVII. Claim 24, 25, drawn to immunotherapy methods comprising the step of using genetically modified cells comprising the polynucleotide as claimed in Group III claims.

Group XVIII. Claim 24, 25, drawn to immunotherapy methods comprising the step of using genetically modified cells comprising the polynucleotide as claimed in Group IV claims.

Group XIX. Claim 26, 27(a), drawn to an agonist to the polypeptide of Group I claims.

Group XX. Claim 26, 27(a), drawn to an agonist to the polypeptide of Group II claims.

Group XXI. Claim 26, 27(a), drawn to an antagonist to the polypeptide of Group I claims.

Group XXII. Claim 26, 27(a), drawn to an antagonist to the polypeptide of Group II claims.

Group XXIII. Claim 24, 25, drawn to an immunotherapy method of employing a vaccine comprising an effective amount of antigen presenting cells, which has been modified by an in vitro culturing step with a polynucleotide as claimed in Group III.

Group XXIV. Claim 24, 25, drawn to an immunotherapy method of employing a vaccine comprising an effective amount of antigen presenting cells, which has been modified by an in vitro culturing step with a polynucleotide as claimed in Group IV.

Group XXV. Claim 28, 30, drawn a diagnosing method of employing an assaying for the presence of the polypeptide of Group I claims.

Group XXVI. Claim 28, 30, drawn a diagnosing method of employing an assaying for the presence of the polypeptide of Group II claims.

Group XXVII. Claim 29, 31, drawn a diagnosing method of employing an assaying for the presence of the polynucleotide of Group III claims.

Group XXVII. Claim 29, 31, drawn a diagnosing method of employing an assaying for the presence of the polynucleotide of Group IV claims.

Group XXVIII. Claims 34, 35, drawn to an improper use claim wherein the use intended for treatments of carcinoma or colon cancer, wherein the polynucleotide of Group III claims may be employed.

Group XXIX. Claims 34, 35, drawn to an improper use claim wherein the use intended for treatments of carcinoma or colon cancer, wherein the polynucleotide of Group IV claims may be employed.

Group XXX. Claims 35, 36, drawn to an improper use claim wherein the use intended for treatments of carcinoma or colon cancer, wherein the polypeptide of Group I claims may be employed.

Group XXXI. Claims 35, 36, drawn to an improper use claim wherein the use intended for treatments of carcinoma or colon cancer, wherein the polypeptide of Group II claims may be employed.

The inventions listed as Groups I-XXXI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Each of the Groups is directed to an genus embracing an enormous number of variants derived from either a polypeptide of SEQ ID NO: 2 or SEQ ID NO: 2, or a polynucleotide of SEQ ID NO: 1 or SEQ ID NO: 3, wherein the variants claimed each of the respective group does not necessarily share a substantially common structure and/or functionality. Claiming others related compounds such as agonists, antibodies, antagonist and different methods of using a respective variant or related compound are also structurally and functionally distinct. A search and examination of each of Groups, which are not directed to a single compound *per se,* is already complex and potentially gives to a number of issues that are needed to be prosecuted for a complete examination. Furthermore, due to a limited computer resource, it would be unduly burdensome to search for all of these variants as claimed. Therefore, it would be unduly burdensome for the examiner to search and examine all of the subject matters, which are claimed distinctly within a claim or among the presently pending claims.

Applicant is required to elect a particular group even though this requirement is traversed. Note that the election must be complete in order for the examiner to conduct any meaningful search of the elected claimed invention.

Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Dave Nguyen* whose telephone number is **(571-272-0731**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Amy Nelson*, may be reached at **571-272-0184**

Any inquiry of a general nature or relating to the status of this application should be directed to the *Group receptionist* whose telephone number is **(703) 308-0196**.

Dave Trong Nguyen

Primary Examiner

Art Unit: 1632

DAVE T. NGUYEN
PRIMARY EXAMINER